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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/628,400	08/01/2000	David A. Selby	RSW9-2000-0052-US1	5646

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EXAMINER

CHANCE, JANET D

ART UNIT	PAPER NUMBER
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3626

DATE MAILED: 01/02/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/628,400

Applicant(s)

SELBY, DAVID A.

Examiner

Janet D. Chance

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Notice to Applicant

1. This communication is in response to the application filed 1 August 2000. Claims 1-26 are pending. The IDS statement filed 8 October 2000 has been entered and considered.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: element number 242 on page 13 line 5, and page 14, line 6. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

3. Claims 1-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed toward non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the

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“progress of science and the useful arts” (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

(A) In this case, claim 1 only recites an abstract idea. The recited steps of gathering past reservation data, gathering current reservation data, comparing the past and present data, calculating the likelihood of materialization and outputting the results do not apply, involve, use, or advance the technological arts since all of the recited steps can be performed in the mind of the user or by use of a pencil and paper. These steps only constitute an idea of how to forecast materialization.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the claimed invention produces a materialization forecast.

Although the recited process produces a useful, concrete and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claim 1 is deemed to be directed to non-statutory subject matter.

(B) Claims 2-13 inherit this discrepancy through dependency and, are therefore, rejected as well.

(C) This deficiency can be overcome by simply expressly stating the use of the technological arts, such as a computer processor, in the body of the claim.

(D) Further, under the statute, the claimed invention must fall into one of the four recognized statutory classes on invention, namely, a process (or method); a machine (or system); an article of manufacture; or a composition of matter. However claim 14 does not seem to fall within one of these recognized categories. It is not directed to a process, as there are no method steps; it is not directed to a system, as there are no system components; it is not directed to a composition of matter, as there are not chemical compounds. The invention seems to be directed toward an article of manufacture, however, computer programs not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. In particular, it is unclear whether the computer code, as recited in claim 14, is embodied on a specific computer readable medium within the technological arts, since it appears the computer program is merely stored on media. Such claimed computer programs do not define any structural and functional interrelationships between the computer code and other claimed elements of a computer, which permit the computer's program to be realized (see MPEP section 2106 section IV, B, 1, (a) for further guidance). Simply stated, how is the claimed computer code tangibly embodied within the article of manufacture and how is that embodiment related to a computer to enact its functions?

(E) Claims 15-26 inherit the deficiency through dependence, and are therefore, rejected as well.

(F) The above deficiency can be overcome by simply stating the computer code is embodied on computer readable media.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Jung (4,775,936).

(A) As per claim 1 Jung teaches a forecasting system for perishable commodities comprising the steps of:

a) gathering past reservation information for perishable commodities that have already perished (Jung; col. 2, lines 15-17);

b) gathering current reservation information for perishable commodities that have not yet perished (Jung; col. 2, lines 15-17);

c) comparing the past reservation information and the current reservation information (Jung; col. 2, lines 15-50, and col. 4, lines 15-25);

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d) calculating, based on the comparison, the demand-based booking level based on average “no-shows” (i.e., likelihood that the current reservation will materialize) (Jung; col. 2, lines 15-50, and col. 4, lines 15-25);

e) outputting the demand-based booking level (DBBL) based on average “no-shows” (i.e., materialization forecast) results (Jung; col. 2, lines 15-50, col. 4, lines 15-25, and Figure 4).

(B) As per claim 2, Jung teaches the past reservation data includes historical commodity details (Jung; col. 3, lines 29-31).

(C) Apparatus claims 14-15 differ from claims 1-2, respectively, in that claims 1-2 contain a method recited as a series of function steps whereas claims 14-15 contain features recited in a “means plus function” format. As the method of step claims 1-2 has been shown to be disclosed or obvious by the combined teachings of Jung, it is readily apparent that the “means” to accomplish those method steps is obvious in view of the prior art. As such, the limitations recited in claims 14-15 are rejected for the same reasons given for method claims 1-2, respectively, and incorporated herein.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-11, and 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jung as applied to claims 1-2 and 14-15 above, and further in view of Eldering (6,298,348 B1).

(A) As per claim 3, Jung teaches past reservation information (Jung; col. 3, lines 30-45). However, Jung does not expressly teach that the past reservation information includes Point-of-Sale (POS) information. Eldering teaches the inclusion of POS information (Eldering; col. 5, line 65 to col. 6, line 8, and col. 9, lines 42-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the POS information of Eldering to the materialization method of Jung with the motivation of performing consumer profiling (Eldering; col. 5, lines 65-66).

(B) As per claim 4, Jung teaches the past reservation information includes materialization information regarding past reservations (Jung; col. 2, lines 30-35).

(C) As per claims 5-6, Jung teaches past reservation information (Jung; col. 3, lines 30-45). However, Jung does not expressly disclose the past reservation information including demographic information about the person who made the past reservations and specifically age, sex, and annual income. Eldering teaches the historical information including demographic information about the purchaser, such as age, sex and annual income (Eldering; Figure 2A and col. 7, lines 2-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the demographic information of Eldering to the materialization forecasting

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method of Jung with the motivation of forming “a description of the consumer including demographic characteristics and product preferences” (Eldering; col. 3, lines 34-36).

(D) As per claim 7 and 11, Jung teaches the gathering of historical traffic flow information including aircraft capacity (i.e., commodity details) for each flight that is then compared to current traffic flow information (Jung; col. 3, lines 25-45 and col. 4, lines 14-20).

(B) As per claims 8-9, Jung teaches current and historical reservation information (Jung; col. 4, lines 15-20). However, Jung does not expressly include Point-of-Sale (POS) information. Eldering teaches the current reservation information including POS records (Eldering; col. 9, lines 42-50) and demographic information about the person making the purchase (Eldering; col. 12, lines 33-40). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the POS and demographic information in the reservation information method of Jung with the motivation of “understanding the demographics and product preferences of the consumer in order to be able to determine if an advertisement is appropriate” (Eldering; col. 2, lines 22-24).

(C) Claim 10 recites the same limitations as claim 6, and is therefore, rejected for the same reasons provided for that claim, and incorporated herein.

(D) Apparatus claims 16-24 differ from claims 3-11, respectively, in that claims 3-11 contain a method recited as a series of function steps whereas claims 16-24 contain features recited in a

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“means plus function” format. As the method of step claims 3-11 has been shown to be disclosed or obvious by the combined teachings of Jung and Eldering, it is readily apparent that the “means” to accomplish those method steps is obvious in view of the prior art. As such, the limitations recited in claims 16-24 are rejected for the same reasons given for method claims 3-11, respectively, and incorporated herein.

8. Claims 12-13 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jung and Eldering as applied to claims 11 and 24 above, and further in view of Whitesage (5,191,523).

(A) As per claim 12, the combined teaches of Jung and Eldering teach the current reservation information includes Point-of-Sale (POS) information (Eldering; col. 5, line 65 to col. 6, line 8, and col. 9, lines 42-50). However, the combined teachings of Jung and Eldering do not expressly disclose the POS information including a booking carrier, booking recency or fare code information. Whitesage, teaches the POS information including booking carrier, booking recency and fare code information (Whitesage; Figures 3, 6AF). It would be obvious to one of ordinary skill in the art at the time of the invention to expand the POS information of the combined method of Jung and Eldering to include the specific POS details of Whitesage with the motivation of “recording the amount payable to the airline issuig the ticket and the receivable due from the client” (Whitesage; col. 1, lines 60-62).

(B) As per claim 13, Jung teaches the gathering of historical traffic flow information including aircraft capacity (i.e., commodity details) for each flight that is then compared to current traffic flow information because of similar traffic characteristics (Jung; col. 3, lines 25-45 and col. 4, lines 14-20).

(C) Apparatus claims 25-26 differ from claims 12-13, respectively, in that claims 12-13 contain a method recited as a series of function steps whereas claims 25-26 contain features recited in a “means plus function” format. As the method of step claims 12-13 has been shown to be disclosed or obvious by the combined teachings of Jung, Eldering and Whitesage, it is readily apparent that the “means” to accomplish those method steps is obvious in view of the prior art. As such, the limitations recited in claims 25-26 are rejected for the same reasons given for method claims 12-13, and incorporated herein.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited but not relied upon art teaches a Geographic Information System to link groups of consumes together to provide marketing demographic data for any product category (6,078,891), and articles concerning air travel including demographic research (Jovin, Ellen, “Buckling up the business traveler”), and (Kitahara, Yoji, “Travel Monitor: Japanese travellers’ needs changing fast”).

10. **Any response to this action should be mailed to:**

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Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 305-7687 [Official communications]
(703) 746-7238 [After Final communications, labeled "Box AF"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive,
Arlington, VA, 7th floor receptionist.

11. Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Janet D. Chance whose telephone number is (703) 305-5356.


The examiner can normally be reached on M-F 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Joseph Thomas can be reached on (703) 305-9588. The fax phone numbers for the
organization where this application or proceeding is assigned are (703) 746-7687 for regular
communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is (703) 308-1113.

jdc

December 24, 2002


DINH X. NGUYEN
PRIMARY EXAMINER